

Amendment to the Claims:

Please amend claims 3, 7, 8, 10, 16 and 17, and please add claims 18-20. The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A method of determining the existence of or a predisposition to Alzheimer's disease, autoimmune disease or other neurodegenerative diseases, the method comprising analysing a DNA bearing sample taken from a subject animal to determine the allelic variants present at one or more of the SNP loci at positions -1082, -819 and -592 of the gene encoding IL-10.
2. (Original) A method according to claim 1, in which the genotype at all three positions -1082, -819 and -592 is determined.
3. (Amended) A method according to claim 1 ~~or claim 2~~ which further comprises analysing the sample to determine the alleles present for the genes encoding IL-6 and Apo-E.
4. (Original) A method according to claim 3 which further comprises analysing the sample to determine the alleles present for the gene encoding IL-1.
5. (Original) A method of treating Alzheimer's disease, autoimmune disease or other neurodegenerative disorder which comprises augmenting the function of a gene having one of the allelic polymorphisms of IL-10 shown in Table I.
6. (Original) A method of treating Alzheimer's disease, autoimmune disease or other neurodegenerative disorder which comprises decreasing the function of a gene having one of the allelic polymorphisms of IL-10 shown in Table I.

7. (Amended) A method according to claim 5 ~~or claim 6~~ where the modulation of the function of the gene is by genetic therapy.
8. (Amended) A method according to claim 5 ~~or claim 6~~ where the modulation of the function of the gene is by pharmacological intervention.
9. (Original) A method according to claim 8 where the pharmacological intervention is using one or more compounds that enhance or inhibit antigen specific production of interleukin-10 and, optionally, one or more other cytokines.
10. (Amended) A method according to ~~any~~ claim 9, characterised in that the other cytokine is selected from the group consisting of interleukin-1 (α or β), interleukin-2, interleukin-3, interleukin-4, interleukin-5, interleukin-6, interleukin-7, interleukin-8, interleukin-9, interleukin-11, interleukin-12, interleukin-13, interleukin-14, interleukin-15, interleukin-16, interleukin-17, interferon- α , interferon- β , interferon- γ , TNF- α , TNF- β , G-CSF, GM-CSF, M-CSF, and TGF- β .
11. (Original) DNA fragments and cDNA fragments comprising the allelic polymorphs of Table I for use in the method of claim 7.
12. (Original) Use of the DNA or cDNA fragments of claim 11 in a method of screening compounds for the ability to modulate the allelic polymorphisms of Table I.
13. (Original) Use of the DNA or cDNA fragments of claim 11 in a method of screening compounds for the ability to modulate or prevent Alzheimer's disease.

14. (Original) Use of cytokines in the preparation of a medicament for the treatment or prophylaxis of diseases which are not neoplastic.
15. (Original) Use according to claim 14, characterised in that the disease is a neurodegenerative disorder or an autoimmune disorder.
16. (Amended) Use according to claim 14 ~~or claim 15~~, characterised in that the use is for Alzheimer's disease.
17. (Amended) Use according to any one of claims 14 ~~to 16~~, characterised in that the cytokine is selected from interleukin-1 (α or β), interleukin-2, interleukin-3, interleukin-4, interleukin-5, interleukin-6, interleukin-7, interleukin-8, interleukin-9, interleukin-10, interleukin-11, interleukin-12, interleukin-13, interleukin-14, interleukin-15, interleukin-16, interleukin-17, interferon- α , interferon- β , interferon- γ , TNF- α , TNF- β , G-CSF, GM-CSF, M-CSF, and TGF- β .
18. (New) A method according to claim 6 where the modulation of the function of the gene is by genetic therapy.
19. (New) A method according to claim 6 where the modulation of the function of the gene is by pharmacological intervention.
20. (New) A method according to claim 19 where the pharmacological intervention is using one or more compounds that enhance or inhibit antigen specific production of interleukin-10 and, optionally, one or more other cytokines.